



Market and Trade Data

Exporting Agricultural Biotechnology Products to Japan

By Tetsuo Hamamoto

Despite strong concerns about the products of biotechnology among Japanese consumers, U.S. agricultural biotech products have a strong market in Japan, which imports about 16 million metric tons of U.S. corn and 4.5 million metric tons of U.S. soybeans per year, the majority of which is biotech. Most of the corn is for feed. Almost all of the soybeans are bulk shipments for crushing, also used in feed. Vegetable oils are not required to carry biotech labels. However, Japan's food industry demands soybean ingredients in foods be non-biotech.

Japanese Biotech Research

Although Japan has no substantial commercial production of biotech crops, it is one of the leaders in biotech research. Although a number of public research institutes are actively engaged in plant and industrial biotech investigation, there are no new food products in the pipeline for commercialization. Ongoing research includes the introduction of fungal resistance and pollen-allergy suppressing traits into rice. Most of this research is at the early experimental stage, and it will be years before these products will be commercially available.

Japanese Biotech Regulations

In Japan, commercialization of biotech plant products requires environmental, food and feed approvals. Four main ministries are involved in regulating agricultural biotechnology: MAFF (Ministry of Agriculture, Forestry and Fisheries); MHLW (Ministry of Health, Labor and Welfare); MOE (Ministry of Environment; and MEXT (Ministry of Education, Culture, Sports, Science and Technology). Risk assessments and safety evaluations are performed by each ministry's advisory committees and scientific panels at the development stage if their responsibility. All four panels must approve every product. The scientific panels are composed mainly of researchers from universities and public institutions. The decisions of the scientific panels are reviewed by the advisory committees, whose members include technical experts and consumer and industry opinion leaders.

As of February 2006, Japan has approved 75 biotech modifications for food, 59 for feed and 55 for planting. Japanese law requires that all entities obtain approval before field trials of biotech crops. Detailed information including preventive measures against breeding, such as buffer zones, must be made public. Separate environmental approvals are required for stacked

modifications – those that combine already approved traits, such as herbicide tolerance and insect resistance. In addition to national regulations, there are also local requirements in some areas.

Food Labeling

Because of consumer insistence, Japan requires strict labeling on all biotech food products. To date, 31 foods are subject to the requirement because they are made from ingredients that could contain biotech products and because traces of introduced DNA or protein can be identified in them. These foods include: soybean products such as tofu, soybean curd, soy milk, soybean paste and soybean flour; corn foods such as snacks, starch and popcorn; potato items such as frozen and dried potatoes, or starch and snacks; and any item containing alfalfa as the primary ingredient.

If the weight of the ingredient to be labeled in these 31 foods exceeds 5 percent of the total, the food must be labeled with either the phrase "biotech ingredients used" or "biotech ingredients not segregated." To be labeled "non-biotech," the processor must show that the ingredient received "identity preserved" handling from production through processing.

Like the United States, Japan has a zero tolerance for unapproved biotech foods. To assure compliance, a sampling program is in place that tests both shipments at port and processed food products at the retail level. Any detection of an unapproved biotech ingredient in a food violates Japan's Food Sanitation Law. If an unapproved product is

detected, the shipment must be re-exported, destroyed or diverted for non-food use. The primary imports tested are corn, soybeans, papayas and potatoes.

Feed Requirements

All biotech-derived plant materials to be used as feed in Japan must obtain safety approvals. In feed, there is a 1-percent tolerance for the unintentional commingling of biotech products that are approved in other countries but not yet approved in Japan. To apply the exemption, the exporting country must be recognized as having a safety assessment program equivalent to or stricter than that of Japan, like the United States.

Consumer Concerns and Education

Although the Japanese food industry and government are generally receptive of agricultural biotech products, they are cautious about publicly discussing these products' benefits. Consumer concerns, particularly among some small but very vocal associations, have been strong since biotech products went on the market in the late 1990s. As a result, the food industry is

hesitant to provide biotech products.

Retailers, particularly large supermarket chains, also avoid biotech products. This tendency for demanding non-biotech ingredients is especially strong for foods and beverages made from soybeans or corn.

To overcome the negative image of biotech food products, it is essential to provide clear, understandable information about agricultural biotechnology and food safety. The regulatory process needs to be transparent in order to gain consumer confidence. Recent surveys show that Japanese consumers are more willing to accept and buy biotech products that are nutritionally enhanced or prevent disease as opposed to biotech products with a price or production advantage. The key for the acceptance of biotech products is to show how the product benefits the consumer.

During the last couple of years the FAS Agricultural Affairs Office in Tokyo has worked to explain the benefits of biotech agricultural products to the public. For example, in March 2004, in conjunction with the American Farm Bureau Federation, the office sponsored a series of biotech educational seminars in four Japanese cities. In August 2004, it organized a tour for Japanese farmers and reporters of U.S. agricultural biotech facilities. ■

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e-Sources:

Important Japanese Biotech Web Sites

Food Safety Commission, for biotech food risk assessment standards:

http://www.fsc.go.jp/senmon/ideni/gm_kijun_english.pdf

MAFF, for information related to agricultural biotechnology:

<http://www.s.affrc.go.jp/docs/sentan/>

HLW, for information related to biotech food regulations:

<http://www.mhlw.go.jp/english/topics/food/index.html>

and for biotech food labeling:

<http://www.mhlw.go.jp/english/topics/qa/gm-food/index.html>

Biosafety Clearinghouse:

http://www.bch.biodic.go.jp/english/e_index.html

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